The I/O Connector

AUGUST, 1983

The Newsletter of the San Diego Atari Computer Enthusiasts

PRESIDENT'S REPORT

I am glad to be back in the US, even thou I had an interesting time in the Orient. While in Japan I saw many different computers. Floors and floors of them. Both personal and home. All were more expensive than our ATARI's. I didn't have time to look at each one but I don't think any of them had the graphic capabilities that the ATARI has.

I haven't been home long enough to have anything to report on. We will try to have the light pen demo at the next meeting as well as Computer Control Center's new 80 column terminal program. Advance viewing indicates that it will be an outstanding terminal program.

Those of you that subscribed to ANALOG and haven't received your copy yet here is an 800 number to call. 1-800-345-8112. TOLL FREE. Your subscription was sent in Jan. 1983.

The board voted to make a change in the Constitution subject to the memberships approval. Article III, Section B of the By-Laws states: Any person joining after October 1st, shall be considered paid up for the next calender year. The proposed change is: Any person joining after July 1st shall pay one-half the yearly dues.

Thats all for now. See you at the next meeting.

EDITOR'S OUTPUT

The editor is on vacation this month so your president is attempting to edit the newsletter. Have a good time Dave. Come back soon!

SECRETARY'S REPORT

Officer, officer, who has the officer?

That's what it was like at July's meeting! Dick was in the Orient, Tony was working at the globe, Chuck had business to attend to, (No, he wasn't in Hawaii). All that was left were Paul, Dave and myself!

Paul opened the meeting at 6:40 with the announcement that our scheduled speaker was not able to make it, but, we did have Chris Crawford, (in video-tape form), as a substitute. We showed the Atari "Crawford Tapes" #1, 2 and 3. Each dealt with an aspect of the special hardware and software in the ATARI. Many of the techniques described were shown working in some popular ATARI games. Thanks to the Atari Users Support Group for providing this special treat.

INSIDE

MORE BASIC:
Program Compaction

After reading my article on using POKE 85 for TAB(x), Buck decided that this method would be better than the commas and spaces he was using in a program he has been working on. So, he went and changed all of his commas, etc. to POKE 85s and noticed a dramatic increase in the speed the menus displayed on the screen. He also noticed that it added another 10 sectors to the program on file, (that's about 1.25K). So what he gained in speed and clarity, he lost in memory.

Why? Well it has to do with how a BASIC program is stored in memory. When Buck said:

        ? ,,"Price "

He used 1 byte for the "?", 2 bytes for the commas, 2 bytes to signal a string constant and its length, and another 6 for the string itself, for a total of 11 bytes.

S.D.A.C.E. OFFICERS

When he changed it to:
        POKE 85,19: ? "Price "
He used:
   1 byte for the POKE command
   7 bytes for the constant 85
   7 bytes for the constant 19
   1 byte for the colon
   1 byte for the "?"
   2 bytes to signal a string
     constant and its length
   6 bytes for the string
   -- -------------------------
   25 bytes total

Meaning he lost about 14 bytes every time the substitution was made. That adds up FAST!

How can we work around this? well, a good part of the overhead is in the use of literal constants like 85 and 19. A literal takes up 1 byte to say that a literal is coming up, and another 6 to represent it in floating point notation. Variables, on the other hand use only two bytes. One to say the next thing is a variable, and another to tell which variable it is. The idea here is to create variable constants.

No, that's not a contradiction in terms. It means that we are going to put a number in a variable and not change it. This is a good idea for any number that you use alot within a program. (It is usually cost efficient if the number is used more than 6 times, as a rough rule of thumb. Less than that is not, for reasons that I can't go into here.)

Here's how Buck can save 12 bytes:

Assuming that 19 is used several times, (We know that 85 is!), we will do the following at the beginning of our program:

   50 N0=0:N1=1:N19=19:N85=85

(Buck uses the numbers 0 and 1 alot in his program, I'm sure!) And now we can say:

        POKE N85,N19: ? "Price "

which takes up 14 bytes, just 3 more than when we started.

Now Buck has his speed AND he gets his 10 sectors back, (because he changed ALL the constants that were used more than 5 or 6 times to variable constants).

I have used this method to take a 38K program down to 26K in about 45 minutes. It's actually quite fun, searching out all those evil constants!

SUMMER TIME
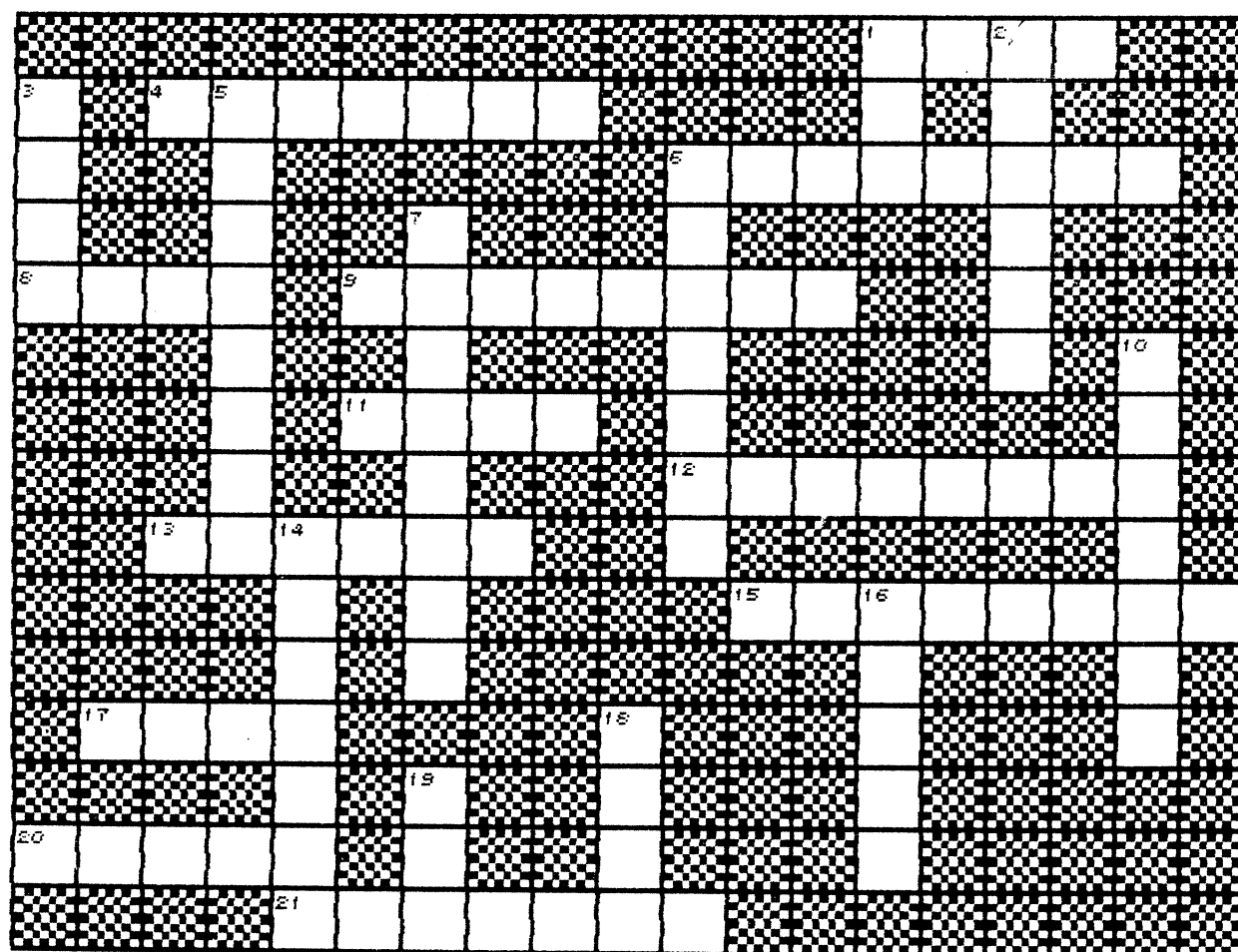
ACROSS CLUES

1. TO TAKE A BREAK FROM TOIL.
4. SPORT INVOLVING WATER.
6. SUMMER SPORTS PASTTIME
8. ANOTHER SUMMER SPORT
9. COOKING OUTSIDE
11. ONE OF THE SEASONS
12. SUMMER COOLER
13. PORTABLE MEAL
15. LARGE MEETS,USUALLY FOR MUSIC
17. SUMMER WATER SPORT
20. OPPOSITE OF OLDER
21. WHAT CAN HAPPEN IF YOU STAY
    OUT TO LONG.

DOWN CLUES

1. CORNED-BEEF ON------.
2. FALL,SPRING,SUMMER,ETC.
3. WILD PARTY
5. WATER SPORT
6. MEANS OF TRANSPORTATION
7. WHAT MOST PEOPLE DO IN THE
   SUMMER
10. SUMMER DRINK
14. WHAT SUMMER DRINKS ARE KEPT IN
16. OPPOSITE OF ALWAYS
18. OPPOSITE OF UNDER
19. WHAT SOME BLONDS WISH FOR

The dog days of August are here, further melting home computer prices. I have seen the Atari 400 selling for $70 less a $50 rebate; and the 1200 for $289 less an $100 rebate. And it is possible to buy the Timex computer for as low as $34 - unbelievable! As I spot these bargains, I will try to enter messages on our BBS at 447-8143. I cannot guarantee any info I leave on the BBS, because stores are changing their prices daily.

A low-priced store which is now carrying the complete Atari line is ANA Discount Photo and Appliance, 4427 Ranier Ave., phone 283-2368. They did have a very low price on the 1200 and their other prices are very reasonable. Consumer Computer and On Line in La Mesa have both discontinued the Atari line, but do have a few bargains in Atari software.

This month is a reprint of local sources for Atari hardware, software, and related items (disks, paper, ribbons, etc.). The department stores are carrying a fuller line of Atari software, but the computer related stores have more knowledge and selection. The HARD-SOFT column shows the kinds of merchandise carried or service given. The DISCOUNT column gives a general idea of the size of the discount given and whether the store will give a discount with your ACE membership card.

Once again, none of the places listed are endorsed by myself or SDACE. You are free to pick any retailer you feel comfortable with. My advice is to ask around the club to find out which are helpful and reliable. Anyone wishing to make corrections or additions can send mail to: Paul Caesar, 377 Fashion Valley, San Diego, CA 92108. Enjoy this month - hope to hear from some of you.

Store	Address	Phone	Hard-Soft	Discount	Notes
ABC PRODUCTS	8868 CLAIREMONT MESA BL. S.D.	268-3537	SUPPLIES	NO	LOW PRICES-DISKS-CASSETTES-ETC
ANA DISCOUNT PHOTO	4427 RANIER AVE. S.D.	283-2368	BOTH	BIG	WATCH FOR SPECIALS
APPLE COUNTRY	PO BOX 1099 JULIAN, CA 92036	765-0239	BOTH	25-30%	MAIL OR PHONE ORDER
ARDAN	880 ARNELE AVE. E.C.	579-7722	BOTH	10-15%	ATARI 400 & SOFTWARE
ATV	8464 COMMERCE AVE. S.D.	578-5516	REPAIR	NO	REPAIR OF 400, 410, 800, & 810
B. DALTON BOOKS	ALL LOCATIONS	SEE BOOK	BOOKS	NO	SOFTWARE AT MISSION VALLEY
BEST PRODUCTS	7938 EL CAJON BL. L.M.	698-7244	BOTH	10-15%	ATARI 400 & SOFTWARE
COMPUTER AGE	4688 CONVOY DR. S.D.	565-4842	BOTH	10-15%	ATARI 800 & 400
COMPUTER CONTROL	CNTRL5005 CASS ST. P.B.	273-5005	BOTH	5-25%	REPAIR AND CONSULTING
COMPUTER KONTROL	10761 WOODSIDE SANTEE	448-9240	SUPPLIES	LOW PRICES	RIBBONS DISKS AND SUPPLIES
COMPUTER THINK TANK	3947 GOVERNOR DR. S.D.	457-0677	BOTH	10-25%	VERY HELPFUL
DIMENSIONAL SOFTWARE	3954 CLAIREMONT MESA BL. S.D.	275-4243	BOTH	NONE	LARGE SELECTION OF SOFTWARE
DISCOUNT DEPOT	PRICE BAZAAR 1440 BROADWAY C.V.	691-1284	BOTH	15-20%	ATARI 800 & 400
DISNEY ELECTRONICS	4341 TWAIN AVE. S.D.	281-0285	BOTH	5-30% CARD	ADDING MORE SOFTWARE
EQUUINE COMPUTING	PO BOX 704 BONITA	479-6253 EVES	BOTH	COST+10%	ALL ATARI PRODUCTS
FEDCO	1725 N. EUCLID S.D.	262-2411	BOTH	GOOD	BIG SELECTION-LOW PRICES
FEDERATED GROUP	3146 SPORTS ARENA BL. S.D.	223-5301	BOTH	WILL DEAL	SHOW LOW PRICE- ASK TO BETTER
GEMCO	ALL LOCATIONS	SEE BOOK	BOTH	NO	-
INFOTAINMENT COMPUTERS	2576 N. EL CAMINO REAL ENCIN.	436-0693	BOTH	20% W/CARD	NORTH COUNTY
JC PENNEYS	MOST LOCATIONS	SEE BOOK	BOTH	NONE	WATCH FOR SALES!
KIRK PAPER	9737 AERO DR. S.D.	268-3282	SUPPLIES	NO	LOW PRICES-PAPER-LABELS-ETC
MAILCOMP	9434 CHESAPEAKE S.D.	277-8002	BOTH	20-25%	VERY HELPFUL
MAY CO	MOST LOCATIONS	SEE BOOK	BOTH	NO	ATARI 800, 400 & ACCESS.
PACIFIC STEREO	ALL LOCATIONS	SEE BOOK	BOTH	10-15%	WATCH PAPER FOR SALES
RIBBONS UNLIMITED	4476 30TH STREET S.D.	280-0328	RIBBONS	NO	GOOD RIBBON PRICES-NICE PEOPLE
SEARS	MOST LOCATIONS	SEE BOOK	BOTH	NONE	-
SIERRA NATIONAL CORP.	5037 RUFFNER ST. S.D.	277-4810	BOTH	10-15%	ATARI REPAIR STATION
SOFTWAIRE CENTRE INT.	4170 CONVOY ST. S.D.	576-1424	SOFT	NONE	GOOD SELECTION-MAGS-BOOKS
SOFTWARE ONLY	8199 CLAIREMONT MESA BL. S.D	569-1666	SOFT	NONE	GOOD SELECTION
SOFTWAIRE CENTRE	5232 JACKSON DR. L.M.	462-3900	SOFT	10% W/CARD	DISCOUNT AT THIS LOCATION ONLY
SOUTHLAND COMPUTER SYS	6972 UNIVERSITY AVE S.D.	286-6262	BOTH	10-15%	PREVIOUSLY A.S.C.
SUPER CITY	ALL LOCATIONS	SEE BOOK	SUPPLIES	-	LOW PRICES-DISKS-PAPER
TARGET STORES	ALL LOCATIONS	SEE BOOK	BOTH	NO	ATARI 400, 800 & ACCESS.
THE BROADWAY	ALL LOCATIONS	SEE-BOOK	BOTH	NO	ATARI AND RELATED PRODUCTS
THE COMPUTER STORE	289 3RD AVE. C.V.	619-422-6785	BOTH	5-30% CARD	ALSO SEE DISNEY ELECT.
TOYS-R-US	ALL LOCATIONS	SEE-BOOK	BOTH	15-20% OFF	ATARI 400 AND SOFTWARE ONLY
VIDEO CONCEPTS	ALL LOCATIONS	SEE BOOK	BOTH	NO	ATARI 800 & 400

MACE PRESENTS
THE WORLD'S FIRST
ATARI-ONLY COMPUTER CONVENTION

TARICON '83

OCTOBER 21-23, 1983
SOUTHFIELD CIVIC CENTER PAVILLION
SOUTHFIELD, MICHIGAN

The First Major Consumer Computer Convention
Devoted Exclusively To Atari Home Computers
and Related Support Products

CONVENTION FEATURES

- Over 50 Exhibit Booths with Atari-Related Products
- Giant 20' x 40' Atari Display
- Over 50 Seminars and Workshops Devoted to Helping You Get Maximum Use from Your Atari
- Many, Many Noted Software Authors Speaking on Game, Business and Educational Programs
- Special How-To-Get-Started Seminars
- New Product Introductions
- Game Tournaments
- Seminars/Meetings by MACE's Special Interest Groups
- Pre-Convention Banquet Friday Evening
- Displays by Software, Peripheral and Accessories Companies
- Product Demonstrations and Workshops
- Door Prizes and Raffles
- Thousands of Atari Computer Enthusiasts

For more information, send for our full pre-registration flyer:
TariCon '83 Info, MACE, Box 2785, Southfield, Michigan 48037

BASIC BASICS

Beginner's Column

I've been asked once again to give my annual lecture on converting Microsoft strings to Atari 8K strings, so here it is:

Microsoft	Atari
LEFT$(A$,X)	A$(1,X)
MID$(A$,X,Y)	A$(X,X+Y-1)
RIGHT$(A$,X)	A$(L-X+1)
	A$(L-X+1,L)
	A$(LEN(A$)-X+1)
	A$(LEN(A$)-X+1, LEN(A$))
DIM A$(X)	DIM A$(X*L)
A$(X)	A$((X-1)*L+1,X*L)

Where "L" is the maximum length of a string or substring.

If the value of "X" is a constant, then you can simplify the coding:

```
MID$(A$,5,3)   is  A$(5,7)
                   A$(5,5+3-1)
```
or:

```
A$(4)          is  A$(31,40)
                   Assuming "L" = 10
                   A$((4-1)*10+1,4*10)
```

You can also combine LEFT$,MID$ and RIGHT$ with subscripted variables:

```
    LEFT$(A$(X),5)
```

becomes:

```
    A$((X-1)*L+1,(X-1)*L+5)
```

Any questions? Give me a call!

Don Perkins

CALENDAR

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What: San Diego Atari Computer Enthusiasts
Monthly Meeting

When: 6:30 p.m.
3rd Monday of each month

- July 18, August 15

Where: North Park Recreational Center
4044 Idaho Street
Social Room

Contact: Dick Hiatt, 463-8460 evenings.

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What: North County A.C.E.

When: 6:00 p.m.
3rd Tuesday of each month

- July 19, August 16

Where: 8081 Mira Mesa Blvd.
(Church across street and west of Mira Mesa
Cinemas.)

Contact: Ron Miller, 748-7195

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What: North-West County A.C.E.
Monthly Meeting

When 9:00 a.m.
2nd Saturday of each month

- July 9, August 13

Where: Infotainment Computers

Contact: Rick Reichert, 727-6566

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What: Deadline for I/O Connector Newsletter

When: 28th of each month

Where: c/o David Schultz
4037 Honeycutt Street   San Diego, CA 92109

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What: John Craig's COMPUTER SWAP AMERICA

When: 10 Sept. 10AM to 6PM

Where: Santa Clara County Fairgrounds, San Jose, Ca.

Admission is $5.00. Door prizes, auctions and a bit of
craziness have made this one of the most popular shows
on the West Coast.

LIBRARIAN'S REPORT

Well, I see that it's time to take pen in hand and
let you know whats happening with the library. I
finished the copies of the library for Jim, so now the
North County is up to date. Although I still am not
sure who has taken over for Nestor in Pacific Beach as
yet. If someone knows let me know. The clubs BBS seems
well recieved by those that use it, but there have been
some questions which I will try to clear up now. If the
info on the screen scrolls by to fast for you to read
it, try control'S', control'Q' will restart it, if you
want to abort a function use control'X'. Some one asked
why there is no directory for D4. Reason is that D4 is
reserved for uploading programs. Any files that are
there are supposed to not be downloadable (is that a
word?) until the sysop can look at them. For those of
you using a Hayes smartmodem this is for you. When you
are done logging off, shut off your modem or the BBS
will log you right back on. I don't know why it does
that,but it does. If you download any file with a .CRE
on the end, ENTER and RUN the file, it will create a
basic file.

Did any one attempt the crossword puzzle in the
last issue? Well if you got stumped the answers are in
this one...... Along with another puzzle.

Well thats about it for me, see you at the next
meeting.

ANSWERS: BBS BLUES

```
. . . . . . . . . . . . . . . . . . . . . . .
.         DEBUG                    .
.            U  B    GET           .
.            IF  Y       AND       .
.            FORTH      P          .
.  D  C    E  E         E          .
. COMPUSERVE      BBS              .
.   S  U  U   O  H  S  A           .
.    D  END  T  I  DISK  A  .
.    U  N    R  A  A  I   T  .
.  READY    ANTIC  CLEAR.
.    S  V   X  T  E    I  R  .
.     PLAIN            S  IF.
.     H  L         START  W  .
.    MODEM                R  .
. R  N                 P  I  .
.HACKER           SAVE   T  .
. M    E  C           RACE  .
.       S  O       A  C  R  .
.       E  O       L  O     .
.  CONTROL     TERMINAL.
. . . . . . . . . . . . . . . . . . . . . . .
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BUY/SELL/TRADE

FILL THIS SPACE!!!

ETC.

Announcements:
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        o Bob Martin tells us
that the
        Astra 1620 2-disk
2-density   drives are now
available at prices between
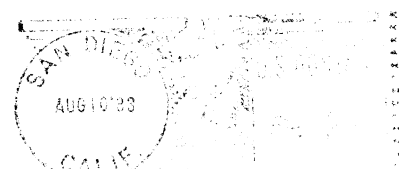$275-$575, depending on volume
ordered.

        o Synapse is coming out
with Syn-Stock. This $75 stock
analysis program is able to
download stock figures from
CompuServe.

        o ATSpeller from APX.
Has a 30,000 word dictionary and
can check at 3 words per second!

        o Consumer Computer is
closing out. Look for some good
bargains there.

The I/O Connector

5353 BALTIMORE DR., #39
LA MESA, CA 92041

OUR NEXT MEETING,
August 15th, 1983
6:30 p.m.

North Park Recreation Center
4044 Idaho Street
Social Room

    LIGHT PEN DEMO
    PROGRAM DEMOS
    (Bring yours)

TO:

STEVE LAWRENCE
8924 DUNCAN RD.
SAN DIEGO, CA
92126